

A NEW, WIDESPREAD SPECIES OF *CHAPTALIA*  
(ASTERACEAE: MUTISIEAE) FROM MEXICO

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ABSTRACT

*Chaptalia transiliens* Nesom, a new species from Mexico, is described and assigned to *Chaptalia* sect. *Leria*; notes on its distribution and phenology are given.

Key Words: Asteraceae (Mutisieae), *Chaptalia transiliens*, Mexico, Guatemalan disjunct

In order that it may properly be dealt with in Rzedowski's forthcoming treatment of Compositae from the Valley of Mexico, I propose the following new species in advance of a revisionary treatment of all 13 species from North America, Mexico, and continental Central America (Nesom, in prep.). Burkart's revision of *Chaptalia* (1944) cited none of the collections listed below; most of them have been made since the completion of his study.

***Chaptalia transiliens*** Nesom, *sp. nov.*

*Chaptaliae nutanti* (L.) Polak. affinis, a qua imprimis differt foliis crassis spathulatis petiolis distincte et anguste alatis, phyllariis interioribus marginibus latis, ligulis erectis angustatis involutis ad maturitatem purpureis initio albis supra, floribus pistillatis interioribus paucioribus ligulis prominentibus, ramis styliorum florum pistillatorum aliquantum complanatis, acheniis rostris brevioribus.

Plants from a simple caudex or a slender, horizontal to ascending rhizome up to 4 cm long. Leaves thick, sometimes slightly coriaceous, spatulate, the blade elliptic to ovate-elliptic, sometimes sublyrate with several shallow lobes at the base, 6–28 cm long, petiole 1/2–2/3 as long as the leaf, winged, blade 9–55 mm wide, densely tawny-gray pubescent below, quickly glabrescent above, glabrous and often somewhat shiny by flowering, margins with numerous apiculae, not revolute. Stems 12–56 cm tall at anthesis, elongating slightly in fruit, tawny webby-pubescent, glabrescent, ebracteate or with a linear bract within 5 mm of the head. Heads 1–2 per plant, nodding in bud; involucre campanulate to hemispheric, 9–19 mm wide (pressed); phyllaries in 3–4 imbricated series, linear-lanceolate with acute apices, sparsely to densely tawny-villous

except for margins and narrow midregion, inner 14–20 mm long at anthesis, not elongating in fruit, 1.3–1.8 mm wide, sometimes purple margined, developing wide (0.2–0.5 mm), flange-like, scarious margins below the upper third and often becoming involute, margins of outer 1–3 series usually minutely stipitate-glandular, outermost  $1/4$ – $1/2$  as long as the inner; receptacle flat, weakly foveolate. Flowers trimorphic in 3 concentric zones, all fertile; outer pistillate flowers 11–21 (32) in 1 series, erect, corolla 11–17 mm long, bilabiate, the inner lip microscopic (0.5 mm long) to 2.5 mm long and equalling the style in length, ligule white above, reddish-purple below, usually maturing purplish above, 0.8–1 mm wide, 3–5 veined, usually involute and often enclosing the style, apex truncate to shallowly lobed or notched, tubular portion 5–7 mm long, style 9.2–11 mm long with somewhat flattened branches 1–2 mm long, often purple; inner pistillate flowers rare to nearly as numerous as the outer ones, ligulate with ligules shorter than those of the outer but sometimes longer than the style, red to cream, bilabiate with an inner lip up to 1 mm long; hermaphroditic (disc) corollas in center of head, yellowish, narrowly oblanceolate in outline, 9–11 mm long, bilabiate, longest lobes 2.2–3.5 mm long, erect to spreading, anthers with thecae 1.5–2.3 mm long, apical appendages 0.8–1.2 mm long, style branches narrowly obovate, 0.8–0.9 mm long. Achenes 7.5–11 mm long at maturity, the body fusiform, slightly flattened, tan to brown, 5–6 mm long, 0.9–1.3 mm wide, 5–6 ribbed, moderately pubescent with prominently attenuate-apiculate papillae, beak light-colored, (0.6) 0.9–1 times as long as the body, upper part minutely stipitate-glandular; carpodium narrow; pappus tawny-white, bristles weakly barbellate, 9.5–12 mm long, longer than the disc corollas.

**DISTRIBUTION AND PHENOLOGY.** Scattered localities in southcentral Nuevo León, Guanajuato, Hidalgo, México, and Puebla, apparently disjunct to Chiapas and Guatemala; usually on steep, moist, shaded, often rocky slopes, with pine, oak, pine-oak, or pine-oak-juniper, in Nuevo León on “open, dry slopes among thorny shrubs”; 1600–2550 m; flowering (January) April through October (November).

**TYPE:** MEXICO. NUEVO LEÓN: NW slope of Cerro Peña Nevada on road to pass, ca. 1.5 km directly NW of summit, ca. 35 km ENE of Doctor Arroyo, steep slope, oak-pine-juniper with

*Agave*; common but scattered, in shade, deep soil, usually under oaks, 31 Jul 1983, *Guy Nesom 4759* (HOLOTYPE: US; ISOTYPES: [to be distributed] ANSM, CAS, ENCB, GH, K, MEXU, MICH, MO, NY, OS, SMU, TEX, UC).

ADDITIONAL COLLECTIONS EXAMINED: GUATEMALA: Chimaltenango, San Martín Chile Verde, 1 Aug 1941, *Johnston 1765* (F); along Aguacatán road E of Huehuetenango, at KM 15, 2 Jan 1941, *Standley 81939* (F); canyon above Chiantla, Sierra de las Cuchumatanes, 9 Aug 1942, *Steyermark 50351* (F). MEXICO. Chiapas: mpio. Tenejapa, W of Tenejapa Center along trail to Paraiso, 5 Aug 1964, *Breedlove 6870* (DS); mpio. La Independencia, 6–10 km NNE of La Soledad along logging road from Las Margaritas to Campo Alegre, 24 Oct 1976, *Breedlove 41026* (DS); 6–10 km NNE of La Soledad, 26 Nov 1980, *Breedlove & Almeda 47775* (CAS); mpio. San Cristóbal las Casas, Cerro San Cristóbal in San Cristóbal, 23 Apr 1966, *Laughlin 740* (DS, MICH); Mt. Malé, Porvenir, 6–12 Jul 1941, *Matuda 4686* (MEXU, MO, NY); Amatenango de Valle, 12 Jun 1945, *Matuda 18243* (MEXU). Guanajuato: camino a San Miguel pasando frontera con Qro., 12 Apr 1981, *Argüelles 1574* (MEXU); ca. 8 km NE of Santa Rosa [Hwy. 110], 10 Nov 1970 (past flower), *Mcvaugh 24173* (NY). Hidalgo: ca. 0.4 km N of Minas Viejas, 3.2 km NE of Durango on Hwy. 85, ca. 32 km S of Jacala, 8 Aug 1981, *Nesom 4377* (LL, MEXU, US). México: 4 km N de Atizapan, 21 Jul 1968, *Rzedowski 26002* (ENCB). Nuevo León: 0.8 km NE of Dulces Nombres, near Tamaulipas border, 18 Jun 1948, *Meyer & Rogers 2575* (MO, US); Lower San Francisco Canyon, ca. 24 km SW of Pueblo Galeana, 18 May 1934, *Mueller & Mueller 437* (GH, MICH, TEX, US). Puebla: mpio. Tecamachalco, El Ocotál, 11 Jul 1972, *Ventura A. 5719* (ENCB, MICH); 8.5 km SW of San Salvador el Seco, 13 Jul 1960, *Beaman 3620* (MSC); Boca del Monte, Tehuacan, Jun 1907, *Purpus s.n.* (UC).

*Chaptalia transiliens* possesses ebracteate scapes, nodding buds, narrow ligules without a definite midstripe, relatively long and narrow pistillate style branches, and fertile disc achenes; these characters identify it as a member of *Chaptalia* sect. *Leria* and a member of the species group that includes the widespread and well-known *C. nutans* (L.) Polak., with which it has usually been confused. It is not clear at present, however, which species within sect. *Leria* *C. transiliens* is most closely related to. Tentative

identifications of the new species can be made on the basis of the relatively thick or slightly coriaceous, spatulate leaves with narrow, winged petioles. Other distinctive features of this species are: 1) long phyllaries, the outer with stipitate-glandular margins, inner with wide, scarious, sometimes flange-like margins; 2) long, narrow, involute ligules, white above and reddish-purple below at early anthesis, completely purplish at maturity; 3) inner pistillate flowers with short but prominent ligules; 4) somewhat flattened pistillate style branches; and 5) achenes with a narrow beak about as long as the body, pubescent with prominently attenuate-apiculate papillae.

The epithet "transiliens" refers to the "leap" shown by the new species in geographic distribution from Mexico and Puebla south-eastward to Chiapas and Guatemala.

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